

AMENDMENTS TO THE CLAIMS:

Claim 1 (currently amended): An apparatus for determining a distance profile comprising a light transmitter for transmitting pulse-like light signals (3) in the direction of a monitored space, a light receiver for receiving light signals reflected/remitted from the monitored space and an evaluation unit (8) for determining distance values in dependence on the light transit time between the transmission and reception of the light signals (3), characterized in that the light transmitter is designed for the simultaneous transmission of simultaneously transmitting a plurality of light signals (3) in the direction of a plurality of reflection/remission points (5) disposed in the monitored space and spaced apart from one another; and in that, the light receiver includes including a plurality of photodiodes (7) for receiving the reception of light signals reflected/remitted by the reflection/remission points, and a light deflection device associated with the light transmitter for deflecting the pulse light signals.

Claim 2 (currently amended): An apparatus in accordance with claim 1, characterized in that wherein the evaluation unit (8) is designed to calculate distance values in dependence on the light transit time between the transmission of the plurality of light signals (3) and the reception of the light signals by n photodiodes (7), with each distance value being associated with a photodiode (7).

Claim 3 (currently amended): An apparatus in accordance with claim 1, characterized in that wherein the plurality of transmitted light signals (3) are components of a fan-shaped light bundle (2).

Claim 4 (currently amended): An apparatus in accordance with claim 3, characterized in that wherein the fan-shaped light bundle (3) extends in one plane.

Claim 5 (currently amended): An apparatus in accordance with claim 1, characterized in that wherein the light transmitter is designed for the projection of a projects a straight line of light (5), in particular of a straight line of light, into the monitored space.

Claim 6 (currently amended): An apparatus in accordance with claim 1, characterized in that wherein the light transmitter is formed as comprises a laser diode.

*A' Canceled*

Claim 7 (currently amended): An apparatus in accordance with claim 1, characterized in that wherein the light receiver is formed as a photodiode row comprises a row of photodiodes.

Claim 8 (canceled)

Claim 9 (currently amended): An apparatus in accordance with claim 8, characterized in that 1 wherein the light deflection apparatus at the light transmitter side is designed for the deflection of a fan-shaped light bundle (2) in a direction perpendicular to the a plane in which the fan-shaped light bundle (2) extends.

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Claim 10 (currently amended): An apparatus in accordance with claim 9, characterized in that wherein the light deflection apparatus device is designed for the periodic deflection of the fan-shaped light bundle (2).

Claim 11 (currently amended): An apparatus in accordance with claim 8, characterized in that 1 wherein the light receiver is made as comprises a two-dimensional photodiode array.